

## 1 & 2 Flute High Speed Steel (HSS) Single & Double Flute Aluminum Cutting Router Bits

CNC Operating Spindle Speed: 18,000 RPM / Depth of Cut: 1 x Tool Diameter †

Up-Cut Tool No.	Down-Cut Tool No.	Max RPM	Flutes	Soft Wood		Hard Wood		Aluminum	
				Feed Rate IPM*	Chip Load Per Tooth	Feed Rate IPM*	Chip Load Per Tooth	Feed Rate IPM*	Chip Load Per Tooth
HSS1620	—	18,000	1	150" - 180"	0.008" - 0.010"	110" - 150"	0.006" - 0.008"	70" - 110"	0.004" - 0.006"
HSS1621	—	18,000	1	150" - 180"	0.008" - 0.010"	110" - 150"	0.006" - 0.008"	70" - 110"	0.004" - 0.006"
HSS1622	—	18,000	1	150" - 180"	0.008" - 0.010"	110" - 150"	0.006" - 0.008"	70" - 110"	0.004" - 0.006"
—	HSS1628	18,000	1	150" - 180"	0.008" - 0.010"	110" - 150"	0.006" - 0.008"	70" - 110"	0.004" - 0.006"
HSS1623	—	18,000	1	150" - 180"	0.008" - 0.010"	110" - 150"	0.006" - 0.008"	70" - 110"	0.004" - 0.006"
—	HSS1629	18,000	1	150" - 180"	0.008" - 0.010"	110" - 150"	0.006" - 0.008"	70" - 110"	0.004" - 0.006"
HSS1624	—	16,000	1	70" - 110"	0.004" - 0.006"	150" - 180"	0.008" - 0.010"	110" - 150"	0.006" - 0.008"
HSS1625	—	16,000	1	70" - 110"	0.004" - 0.006"	150" - 180"	0.008" - 0.010"	110" - 150"	0.006" - 0.008"
HSS1626	—	16,000	1	70" - 110"	0.004" - 0.006"	150" - 180"	0.008" - 0.010"	110" - 150"	0.006" - 0.008"
HSS1627	—	16,000	1	90" - 130"	0.005" - 0.007"	130" - 160"	0.007" - 0.009"	130" - 160"	0.007" - 0.009"
—	HSS1650	18,000	2	220" - 290"	0.006" - 0.008"	180" - 250"	0.005" - 0.007"	70" - 150"	0.002" - 0.004"
HSS1630	—	18,000	2	220" - 290"	0.006" - 0.008"	180" - 250"	0.005" - 0.007"	70" - 150"	0.002" - 0.004"
HSS1631	HSS1651	18,000	2	180" - 250"	0.005" - 0.007"	180" - 250"	0.005" - 0.007"	40" - 110"	0.001" - 0.003"
HSS1632	—	18,000	2	220" - 290"	0.006" - 0.008"	180" - 250"	0.005" - 0.007"	40" - 110"	0.001" - 0.003"
HSS1633	HSS1652	18,000	2	220" - 290"	0.006" - 0.008"	180" - 250"	0.005" - 0.007"	70" - 150"	0.002" - 0.004"
HSS1634	HSS1653	18,000	2	220" - 290"	0.006" - 0.008"	180" - 250"	0.005" - 0.007"	70" - 150"	0.002" - 0.004"
HSS1635	HSS1654	16,000	2	220" - 290"	0.006" - 0.008"	180" - 250"	0.005" - 0.007"	70" - 150"	0.002" - 0.004"
HSS1636	HSS1655	18,000	2	220" - 290"	0.006" - 0.008"	180" - 250"	0.005" - 0.007"	70" - 150"	0.002" - 0.004"
—	HSS1656	18,000	2	220" - 290"	0.006" - 0.008"	180" - 250"	0.005" - 0.007"	70" - 150"	0.002" - 0.004"
HSS1637	HSS1657	16,000	2	220" - 290"	0.006" - 0.008"	220" - 290"	0.006" - 0.008"	70" - 150"	0.002" - 0.004"
HSS1638	—	18,000	2	220" - 290"	0.006" - 0.008"	220" - 290"	0.006" - 0.008"	70" - 150"	0.002" - 0.004"
HSS1639	HSS1658	18,000	2	220" - 290"	0.006" - 0.008"	220" - 290"	0.006" - 0.008"	70" - 150"	0.002" - 0.004"
HSS1640	HSS1659	18,000	2	220" - 290"	0.006" - 0.008"	220" - 290"	0.006" - 0.008"	70" - 150"	0.002" - 0.004"
HSS1641	—	18,000	2	250" - 330"	0.007" - 0.009"	220" - 290"	0.006" - 0.008"	110" - 180"	0.003" - 0.005"
HSS1642	HSS1660	18,000	2	250" - 330"	0.007" - 0.009"	220" - 290"	0.006" - 0.008"	110" - 180"	0.003" - 0.005"
HSS1643	—	18,000	2	250" - 330"	0.007" - 0.009"	220" - 290"	0.006" - 0.008"	110" - 180"	0.003" - 0.005"
HSS1644	HSS1661	18,000	2	290" - 360"	0.008" - 0.010"	250" - 330"	0.007" - 0.009"	150" - 290"	0.004" - 0.008"
HSS1645	HSS1662	18,000	2	290" - 360"	0.008" - 0.010"	250" - 330"	0.007" - 0.009"	150" - 220"	0.004" - 0.006"
HSS1646	HSS1663	18,000	2	290" - 430"	0.010" - 0.012"	330" - 400"	0.009" - 0.011"	220" - 290"	0.006" - 0.008"
HSS1647	—	18,000	2	220" - 290"	0.006" - 0.008"	180" - 250"	0.005" - 0.007"	70" - 150"	0.002" - 0.004"

\* IPM Inches per minute

† **Depth of Cut:** 1 x D Use recommended feed rate  
 2 x D Reduce feed rate by 25%  
 3 x D Reduce feed rate by 50%

Simple Machining Calculations:

To find **RPM:** (SFM x 3.82) / diameter of tool

To find **SFM:** 0.262 x diameter of tool x RPM

To find **Feed Rate IPM:** RPM x # of flutes x chip load

To find **Chip Load:** Feed Rate IPM / (RPM x # of flutes)

To find **Ramp Down:** Feed Rate IPM / # of flutes